# **Virginia Title V Operating Permit**

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:

Facility Name:
Facility Location:

Registration Number:
Permit Number:

Tuscarora Incorporated
45037 Moran Road
Sterling, Virginia
71814
NVRO71814

August 1, 2003
Effective Date
August 1, 2008
Expiration Date
•
Robert G. Burnley
Director, Department of Environmental Quality
Signature Date

Table of Contents, 1 page Permit Conditions, 28 pages

# **Table of Contents**

1.	FA	ACILITY INFORMATION	3
2.	SI	GNIFICANT EMISSION UNITS	4
3.	FU	UEL BURNING EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID #'S 001	1 AND 002)
			5
	A.	LIMITATIONS	5
		MONITORING AND RECORDKEEPING	
		TESTING	
	D.	REPORTING	9
4.	PF	ROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID # 003)	10
	A.	LIMITATIONS	10
		MONITORING AND RECORDKEEPING	
	C.	TESTING	12
5.	FA	ACILITY WIDE CONDITIONS	13
		LIMITATIONS	
		MONITORING AND RECORDKEEPING	
		TESTING	
		REPORTING	
6.	IN	SIGNIFICANT EMISSION UNITS	16
7.	PF	ERMIT SHIELD & INAPPLICABLE REQUIREMENTS	17
8.	GI	ENERAL CONDITIONS	18
	A.	Federal Enforceability	18
		PERMIT EXPIRATION	
		RECORDKEEPING AND REPORTING.	
		ANNUAL COMPLIANCE CERTIFICATION	
	E.	PERMIT DEVIATION REPORTING	20
	F.	FAILURE/MALFUNCTION REPORTING.	20
		Severability	
		DUTY TO COMPLY	
		NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	
		PERMIT ACTION FOR CAUSE	
	11.	PROPERTY RIGHTS	
		DUTY TO SUBMIT INFORMATION	
		FUGITIVE DUST EMISSION STANDARDS	
		STARTUP, SHUTDOWN, AND MALFUNCTION.	
		ALTERNATIVE OPERATING SCENARIOS	
		INSPECTION AND ENTRY REQUIREMENTS.	
		REOPENING FOR CAUSE	
	S.	PERMIT AVAILABILITY	26
		TRANSFER OF PERMITS	
		MALFUNCTION AS AN AFFIRMATIVE DEFENSE	
		PERMIT REVOCATION OR TERMINATION FOR CAUSE	
		DUTY TO SUPPLEMENT OR CORRECT APPLICATION	
		STRATOSPHERIC OZONE PROTECTION	
		ACCIDENTAL RELEASE PREVENTION	
		EMISSIONS TRADING	
		FUTURE APPLICABLE REQUIREMENTS	
		· · · · · · · · · · · · · · · · · · ·	

Page 3 of 28

# 1. Facility Information

#### Permittee

Tuscarora Incorporated 800 Fifth Avenue New Brighton, Pennsylvania 15066

# **Responsible Official**

Mr. Gary W. Rodgers Vice President - Eastern Division

#### **Facility**

Tuscarora Incorporated 45037 Moran Road Sterling (Loudoun County), Virginia 20166

#### **Contact Person**

Ms. Victoria Brind'Amour Manager, Environmental Affairs, Safety, and Health (724) 847-2458

AIRS Identification Number: 51-107-0073

**Facility Description:** SIC Code: 3086 – Plastic Foam Products

Tuscarora Incorporated (Tuscarora) is a custom-shape molder of expandable polystyrene (EPS) and other polystyrene-based polymers, polystyrene/polyethylene copolymers, and other expandable polymeric resin materials. The facility manufactures products for packaging, materials handling, and structural components. The polymeric resins are received in bead form, then expanded and fused into molded product through a series of production steps. Pressurized steam is applied to the beads in the pre-expansion process. After pre-expansion, the partially expanded beads are pneumatically transferred for temporary storage before being molded into final form. Finished goods can be stored on-site prior to shipment.

Page 4 of 28

# 2. Significant Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burni	ng Equip	ment					
001	S2	Cleaver Brooks, Model CB600-250, natural gas/distillate oil fired boiler installed in 1974 (Pre NSPS)	10.46 x 10 <sup>6</sup> Btu/hr (heat input)	None	-	-	None
002	S3	Cleaver Brooks, Model CB200-350, natural gas/distillate oil fired boiler installed in 1998 (NSPS)	14.65 x 10 <sup>6</sup> Btu/hr (heat input)	None	-	-	8/31/00 Minor New Source Review (NSR) Permit
Process A	Process A						
003	S1, DV, EF1- EF6**	EPS/ARCEL Production (Pre- expansion, storage, molding and finished goods storage)	2000 lbs./hr	None	-	-	6/29/96 RACT Consent Agreement, and February 14, 2003 NSR permit

<sup>\*</sup> The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

<sup>\*\*</sup> The production operations associated with Emission Unit ID 003 are released to the atmosphere through general exhaust fans (designated as EF), with the exception of one pre-expander which exhausts through Stack ID S1.

Page 5 of 28

# 3. Fuel Burning Equipment Requirements - (Emission Unit ID #'s 001 and 002)

#### A. Limitations

- 1. The approved fuels for the boilers (**001** & **002**) are natural gas and distillate oil. A change in the fuels may require a permit to modify and operate. (9 VAC 5-80-110 and Condition 5 of 8/31/01 Minor NSR Permit)
- 2. The approved distillate oil shall comply with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils". In addition to the sulfur test methods defined in ASTM D396-78, sulfur test methods conforming to the ASTM D4294-90 specification may also be utilized.

  (9 VAC 5-80-110 and Condition 6 of 8/31/01 Minor NSR Permit)
- The maximum sulfur content of the distillate oil shall not exceed 0.5 percent by weight per shipment.
   (9 VAC 5-80-110 and Condition 7 of 8/31/01 Minor NSR Permit)
- 4. Nitrogen oxide emissions from the operation of the boiler (002) shall be controlled by low NO<sub>x</sub> burners. The boiler (002) shall be provided with adequate access for inspection.
  - (9 VAC 5-80-110 and Condition 3 of 8/31/01 Minor NSR Permit)
- 5. Sulfur dioxide emissions from the operation of the boiler (001) shall not exceed 11.1 pounds per hour.(9 VAC 5-80-110 and 9 VAC 5-40-930 A.2)
- 6. Particulate emissions from the operation of the boiler (**001**) shall not exceed 0.3 pounds per million Btu of heat input. (9 VAC 5-80-110 and 9 VAC 5-40-900 A.2.a)
- 7. Visible emissions from the boiler (**001**) stack shall not exceed 20 percent opacity except for one six-minute period in any one hour of not more than 60 percent opacity. The opacity standard prescribed under this permit condition shall apply at all times except during periods of boiler (**001**) startup, shutdown and malfunction. Failure to meet the requirement of this permit condition because of water vapor shall not be a violation of this requirement.

  (9 VAC 5-80-110, 9 VAC 5-40-320 and 9 VAC 5-40-20)
- 8. Visible emissions from the boiler (002) stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall

Page 6 of 28

not exceed 27 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-80-110, Condition 11 of 8/31/01 Minor NSR Permit, 9 VAC 5-50-80 and 40 CFR §60.43c(c))

9. Emissions from the operation of the boiler (002) shall not exceed the limits specified below:

Particulate Matter	0.4 lbs./hr	1.5 tons/yr.
$PM_{10}$	0.4 lbs./hr	1.5 tons/yr.
Sulfur dioxide	7.5 lbs./hr	33.0 tons/yr.
Nitrogen Oxides (as NO <sub>2</sub> )	0.07 lbs/10 <sup>6</sup> Btu (firing natural gas) 0.25 lbs/10 <sup>6</sup> Btu (firing distillate oil) 3.6 lbs./hr 15.9 tons/yr.	
Carbon Monoxide	2.2 lbs./hr	9.6 tons/yr.
Volatile Organic Compounds	0.4 lbs./hr	1.6 tons/yr.

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using actual fuel throughput and DEQ approved pollutant-specific emission factors and equations.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 10 of 8/31/01 Minor NSR Permit)

10. At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the boilers (001 & 002) in a manner consistent with air pollution control practices for minimizing emissions. Specifically, sulfur dioxide (boilers 001 & 002), particulate matter (boilers 001 & 002), particulate matter less than 10 microns in diameter (PM<sub>10</sub>) (boiler 002), carbon monoxide (boiler 002), and volatile organic compound (boiler 002) emissions from the operation of the boilers shall be controlled by firing clean burning fuels (i.e., natural gas and distillate oil), as stipulated in Section 3, Conditions A.4, A.5 and A.6 of this permit, and by proper operation and maintenance of the boilers and all boiler components.

(9 VAC 5-80-110, 9 VAC 5-40-20 E, 9 VAC 5-50-20 and Condition 4 of 8/31/01 Minor NSR Permit)

11. The boiler (001 & 002) operator(s) shall be trained in the proper operation and maintenance of the boilers (001 & 002). Training shall consist of a review and familiarization of the boiler operating instructions, at minimum. The permittee shall have available good written operating procedures and maintenance schedules for the

Page 7 of 28

boilers (001 & 002). The operating procedures and the maintenance schedules for boiler (002) shall be based on the manufacturer's recommendations, at minimum. The written operating procedures and the maintenance schedules shall be kept on site and made available for inspection by the DEQ.

(9 VAC 5-80-110, 9 VAC 5-40-20 E and Condition 9 of 8/31/01 Minor NSR Permit)

12. Except where this permit is more restrictive than the applicable requirement, the boiler (**002**) shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart Dc.

(9 VAC 5-80-110 and Condition 12 of 8/31/01 Minor NSR Permit)

## B. Monitoring and Recordkeeping

1. The permittee shall maintain records of the required boiler (001 & 002) training, including the names of trainees, the date, place and nature of training provided. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

(9 VAC 5-80-110 and Condition 13 of 8/31/01 Minor NSR Permit)

- 2. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil delivered for firing in the boilers (001 & 002). Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier,
  - b. The date on which the oil was received,
  - c. The volume of distillate oil delivered in the shipment,
  - d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
  - e. The sulfur content of the oil. (9 VAC 5-80-110, 40 CFR §60.48c and Condition 8 of 8/31/01 Minor NSR Permit)
- 3. The permittee shall maintain records of all boiler (001 & 002) emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:
  - a. Monthly and annual throughput of natural gas and distillate oil for boiler (002). Annual fuel throughput for boiler (002) shall be calculated monthly as the sum of each consecutive 12-month period. (The waiver of the daily fuel usage

recordkeeping requirement pursuant to 40 CFR §60.48c(g) is authorized by the determination memorandum issued by R. Douglas Neeley, Region 4, U.S. EPA, on June 9, 1998, titled "Recordkeeping Frequency", Applicability Determination Index Control Number 9800088).

- b. Annual throughput of natural gas and distillate oil for boiler (001). Annual fuel throughput for boiler (001) shall be calculated as the fuel throughput for each calendar year period.
- c. The DEQ approved pollutant-specific emission factors and the equations used to determine the annual pollutant emission rates from each boiler (001 & 002).
- d. Records of all scheduled and non-scheduled maintenance for each boiler (001 & 002).
- e. All fuel supplier certifications required by Section 3, Condition B.2 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years. (9 VAC 5-80-110 E & F, 9 VAC 5-20-160, 9 VAC 5-40-50, 9 VAC 5-50-50, 40 CFR §60.48c and Condition 13 of 8/31/01 Minor NSR Permit)

#### C. Testing

- 1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request by the DEQ, test ports shall be provided at the appropriate locations.

  (9 VAC 5-40-30 and 9 VAC 5-80-110)
- 2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Sulfur Dioxide	EPA Methods 6, 6C
Nitrogen Oxides	EPA Methods 7, 7E
Carbon Monoxide	EPA Method 10
Particulate Matter/PM <sub>10</sub>	EPA Methods 5, 17, 201A
Volatile Organic Compounds	EPA Methods 18, 25, 25A
Visible Emissions	EPA Method 9

Page 9 of 28

#### D. Reporting

The permittee shall submit fuel quality reports to the Air Compliance Manager, Northern Virginia Regional Office within 30 days after the end of each semi-annual period. If no shipments of distillate oil were received during the semi-annual period, the semi-annual report shall consist of the dates included in the semi-annual period and a statement that no oil was received during the semi-annual period. If distillate oil was received during the semi-annual period, the reports shall include:

- 1. Dates included in the semi-annual period,
- 2. A copy of all fuel supplier certifications for all shipments of distillate oil received during the semi-annual period or a semi-annual summary from each fuel supplier that includes the information specified in Section 3 Condition B.2 of this permit for each shipment of distillate oil, and
- 3. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the following address:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110, 9 VAC 5-50-50, 9 VAC 5-170-160, 40 CFR §60.48c and Condition 14 of 8/31/01 Minor NSR Permit)

Page 10 of 28

# 4. Process Equipment Requirements - (Emission Unit ID # 003)

#### A. Limitations

- 1. Volatile Organic Compound (VOC) emissions from the facility's operations (**003** (pre-expansion, pre-puff storage, molding, and finished goods storage)) using the EPS and/or the ARCEL beads shall be controlled by:
  - a. VOC emission limitations as stipulated in Section 4, Condition A.4 of this permit, and
  - b. The use of low and reduced VOC EPS and ARCEL polystyrene-based beads, as defined in Section 4, Condition A.4 of this permit.

(9 VAC 5-80-110, 9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-40-300, Condition 3 of 03/07/03 Minor NSR Permit and Section E.3 of the 6/29/96 RACT Consent Agreement)

- 2. Volatile Organic Compounds emissions from the facility's operations (003) using the EPS and/or the ARCEL beads shall not exceed 103.15 tons per year. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. VOC emissions from the operations (003) shall be calculated using the actual VOC content of the raw material bead, the VOC loss rate during production and storage operations, and actual production data.
  (9 VAC 5-80-110, 9 VAC 5-80-100, Section D.10 of the 6/29/96 RACT Consent Agreement, 40 CFR §52.2420 (c)(128) and Condition 6 of 03/07/03 Minor NSR Permit)
- 3. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using the actual VOC content of the raw material bead, the VOC loss rate (as prescribed under Section 5, Condition B.2 of this permit) during production and storage operations, and actual product throughput data.

  (9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 6 of 03/07/03 Minor NSR Permit)
- 4. The EPS monthly weighted average percentage of VOC from the facility's operations (003 (pre-expansion, pre-puff storage, molding, and finished goods storage)) using the EPS beads shall not exceed 4.5 percent.
  (9 VAC 5-80-110, 9 VAC 5-40-300, Section E.4 of the 6/29/96 RACT Consent Agreement, 9 VAC 5-80-10, 9 VAC 5-50-260, and Condition 4 of 03/07/03 Minor NSR Permit)
- 5. The ARCEL bead monthly weighted average percentage of VOC from the facility's ARCEL production operations (003) shall not exceed 8.5 percent.

Page 11 of 28

(9 VAC 5-80-110, 9 VAC 5-40-300, Section E.5 of the 6/29/96 RACT Consent Agreement, and Condition 5 of the 03/07/03 Minor NSR Permit)

#### B. Monitoring and Recordkeeping

- 1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit from the facility's operations (003) using the EPS and/or the ARCEL beads. The content and format of such records shall be arranged with the Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:
  - a. The annual throughput of expandable polystyrene (EPS) and ARCEL material processed in EPS/ARCEL production (003), and the associated VOC emissions. Production and emissions data shall be calculated monthly as the sum of each consecutive twelve (12) month period.
  - b. The daily quantity of each lot of EPS and ARCEL beads processed and the percentage of VOC contained in each lot of EPS and ARCEL beads processed. This shall be accomplished by the permittee keeping a detailed daily material log that documents the percentage of VOC contained in all the EPS and ARCEL material processed at the facility. The material log shall include the following, as a minimum:
    - (1) The bead type (e.g. EPS, ARCEL) and lot number;
    - (2) The manufacturer's certified VOC content;
    - (3) The quantity processed in each batch.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years. (9 VAC 5-80-110, 9 VAC 5-50-50, Condition 5 of 09/03/97 Minor NSR Permit and Section E.6 of the 6/29/96 RACT Consent Agreement)

- 2. In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment from the facility operations (003) (pre-expansion, pre-puff storage, molding, and finished goods storage), the permittee shall:
  - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

Page 12 of 28

b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

(9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 9 of 09/03/97 Minor NSR Permit)

# C. Testing

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use EPA Methods 18, 25 or 25a (40 CFR Part 60, Appendix A) or other method approved in writing by the DEQ for the determination of VOC emissions. (9 VAC 5-80-110)

Page 13 of 28

# 5. Facility Wide Conditions

#### A. Limitations

1. The EPS monthly weighted average percentage of VOC shall not exceed 4.5 percent. (9 VAC 5-80-110, 9 VAC 5-40-300, Section E.4 of the 6/29/96 RACT Consent Agreement, 9 VAC 5-80-10, 9 VAC 5-50-260, and Condition 3 of 09/03/97 Minor NSR Permit)

- 2. The ARCEL monthly weighted average percentage of VOC shall not exceed 8.5 percent.
  - (9 VAC 5-80-110, 9 VAC 5-40-300, Section E.5 of the 6/29/96 RACT Consent Agreement)
- 3. Volatile Organic Compounds (VOC) emissions from the expanded polystyrene production shall be controlled by the use of low and reduced VOC EPS and ARCEL beads.
  - (9 VAC 5-80-110, 9 VAC 5-40-300 and Section E.3 of the 6/29/96 RACT Consent Agreement)
- 4. Volatile Organic Compounds emissions from the facility's operations (**003**) using the EPS and/or the ARCEL beads shall not exceed 103.1 tons per year. The VOC limits for each production area are specified below:

Unit ID	Description	VOC Emissions – tons/yr.
001	10.46 MMBtu/hr Boiler	0.25
002	14.65 MMBtu/hr Boiler	1.6
003 EPS/ARCEL Production		103.15
Fac	cility Total	105

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. VOC emission from Emission Units 001 and 002 shall be calculated using actual fuel throughput and DEQ approved pollutant-specific emission factors and equations. VOC emission from Emission Unit 003 shall be calculated using the actual VOC content of the raw material bead, the VOC loss rate during production and storage operations, and actual production data.

(9 VAC 5-80-110, Condition 7 of 12/23/97 Minor NSR Permit, Section D.10 of the 6/29/96 RACT Consent Agreement, and Condition 4 of 09/03/97 Minor NSR Permit)

# B. Monitoring and Recordkeeping

1. The permittee shall keep a detailed daily material log that documents the percentage of VOC contained in all the EPS and ARCEL material processed at the facility. The

Page 14 of 28

material log shall provide sufficient information to demonstrate compliance with the conditions of this permit. As a minimum, the log shall include the following:

- a. The bead type (e.g. EPS, ARCEL) and lot number;
- b. The manufacturer's certified VOC content;
- c. The quantity processed in each batch.

(9 VAC 5-80-110 and Section E.6 of the 6/29/96 RACT Consent Agreement)

- 2. The permittee shall document the VOC loss rate resulting from production operations with each type of raw material (EPS or ARCEL) bead processed. The VOC loss rate shall be verified for each bead type processed at least once each five-year period beginning, with the effective date of this permit. The VOC loss rate shall also be verified whenever there are formulation changes in the raw material beads. The permittee shall document the VOC loss rate using procedures approved in advance by the Air Compliance Manager, Northern Virginia Regional Office. The permittee shall assume a 100 percent VOC loss rate from the raw material beads processed until the VOC loss rate verification is completed in accordance with this permit condition. The permittee may assume a 100 percent VOC loss rate as an alternative to determining actual VOC loss rates from the raw material beads. (9 VAC 5-80-110)
- 3. The permittee shall maintain records of the annual throughput of natural gas and distillate oil for Boiler 001, calculated monthly as the sum of each consecutive twelve (12) month period. (9 VAC 5-80-110)
- 4. All records required by this permit shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years. (9 VAC 5-80-110)

#### C. Testing

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use EPA Methods 18, 25 or 25a (40 CFR Part 60, Appendix A) or other method approved in writing by the DEQ for the determination of VOC emissions. (9 VAC 5-80-110) (9 VAC 5-80-110)

#### D. Reporting

1. A semi-annual report demonstrating compliance with all Reasonably Available Control Technology (RACT) requirements shall be submitted. Tuscarora

Page 15 of 28

Incorporated shall submit the semi-annual compliance report to the Director, Northern Virginia Regional Office within 30 days after the end of each six (6) month period.

(9 VAC 5-80-110 and Section E.6 of the 6/29/96 RACT Consent Agreement)

2. When the facility (**001**, **002**, and **003**) emits 25 tons per year or more of volatile organic compounds or nitrogen oxides, the permittee shall submit an emissions statement to the Air Compliance Manager, Northern Virginia Regional Office by April 15 of each year for the emissions discharged during the previous calendar year. The emissions statements shall be prepared and submitted in accordance with the *Procedures for Preparing and Submitting Emission Statements for Stationary Sources, AQP-8, January 1, 1993* (attached to this permit). (9 VAC 5-80-110, 9 VAC 5-20-160 and 9 VAC 5-20-121)

Page 16 of 28

# 6. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
005	KBM Regrinder – grinds scrap into foam for re-use	9 VAC 5-80-720 B	Particulate	1000 lbs./day
006	Densifier – densifies scrap foam beads	9 VAC 5-80-720 B	Particulate	120 lbs./hour
007	275-gallon, used oil tank	9 VAC 5-80-720 C	VOC	275 gallons
008	275-gallon, kerosene tank	9 VAC 5-80-720 C	VOC	275 gallons
009	Process water cooling tower	9 VAC 5-80-720 A	VOC	900 gallons/hr
010	Forklifts (4) fired with LP gas	9 VAC 5-80-720 A	NO <sub>x</sub> , CO, Particulate, VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting has been prescribed in this permit for these emission units.

Page 17 of 28

# 7. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements that have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability			
No inapplicable requirements were identified in the Title V Operating Permit application					

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

Page 18 of 28

#### 8. General Conditions

#### A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

# **B.** Permit Expiration

This permit shall become invalid five years from the date of issuance. The permittee shall submit an application for renewal of this permit no earlier than 18 months and no later than six months prior to the date of expiration of this permit. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the DEQ on the renewal application.

(9 VAC 5-80-110 D and 9 VAC 5-80-80 F)

# C. Recordkeeping and Reporting

- 1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

Page 19 of 28

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
  - (1) Exceedance of emissions limitations or operational restrictions;
  - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
  - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

#### **D.** Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- 1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- 2. The identification of each term or condition of the permit that is the basis of the certification.

Page 20 of 28

3. The identification of the methods or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required under this permit. If necessary, the owner or operator shall also identify any other material information that must be included in the certification to comply with section 113(c) of the federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information.

- 4. The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Section 6, Condition D.3 of this permit. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred.
- 5. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00) U. S. Environmental Protection Agency, Region III 1650 Arch Street Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

## E. Permit Deviation Reporting

The permittee shall notify the DEQ, Northern Virginia Regional Office, within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VI.C.3 of this permit. (9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

#### F. Failure/Malfunction Reporting

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the Air Compliance Manager, Northern Virginia Regional Office, by facsimile transmission,

Page 21 of 28

telephone, or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Air Compliance Manager, Northern Virginia Regional Office.

The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:

- 1. Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter and shall include the following information:
  - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
  - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
  - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
  - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.
- 2. All emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C must make written reports within two weeks of the malfunction occurrence.

(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)

#### G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

Page 22 of 28

(9 VAC 5-80-110 G.1)

# H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

# I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

#### J. Permit Action for Cause

- This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (9 VAC 5-80-110 G.4)
- 2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:
  - a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;
  - b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;
  - c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;
  - d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

Page 23 of 28

e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;

- f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);
- g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

# **K.** Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

# L. Duty to Submit Information

- 1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110 G.6)
- 2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G. (9 VAC 5-80-110 K.1)

#### M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. (9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

# N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to

Page 24 of 28

be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

- 1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- 2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- 3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
- 4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- 5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90)

#### O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-40-20 and 9 VAC 5-50-20)

#### P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J)

Page 25 of 28

### Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- 1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- 3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- 4. Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

# **R.** Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- 1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- 2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- 3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

Page 26 of 28

# S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

#### T. Transfer of Permits

- 1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another. (9 VAC 5-80-160)
- 2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)
- 3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)

#### U. Malfunction as an Affirmative Defense

- 1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.
- 2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.

Page 27 of 28

d. The permittee notified the board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, telegraph, or any other method that allows the permittee to comply with the deadline. The notification fulfills the requirement of 9 VAC 5-80-110 F.2.b to promptly report deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.

- 3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.
- 4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

#### V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations. (9 VAC 5-80-260)

# W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9 VAC 5-80-80 E)

# X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection)

Page 28 of 28

of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (40 CFR Part 82, Subparts A-F)

#### Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115 the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

# Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (9 VAC 5-80-110 I)

# **AA.** Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- 1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
- 2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- 3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

#### **BB.** Future Applicable Requirements

In addition to the legally binding documents and regulations currently in effect, the permitted facility shall be subject to future applicable requirements. Unless otherwise determined in the future, future requirements already known to apply to this facility include, but are not limited to: